Town of Middleton

82 Kings Highway, Middleton, New Hampshire 03887

CONSERVATION COMMISSION Sunrise Lake Watershed Advisory Committee

Sunrise lake Watershed Advisory Committee 319 Grant Update Meeting August 14th 2025

The meeting was called to order at 5:30 PM. Present from the SLWAC were Chair John Mullen, Members Cindy DeCristofaro and Gail Jones, member/clerk Joni van Gelder. Kate Buzard was unable to attend the meeting due to a conflict with the Planning Board meeting. Heather Cremmen recorded the meeting, and Dan Phillips represented the Town of Middleton Highway Department. Kyle Pimental from SRP was present, as was Sally Soule NHDES, and Ben Dryer and Kate Varney from Underwood were also at the meeting. Several community members were also present (see attached sign in sheet).

SRP kicked off the meeting with a high-level recap, noting that Underwood was hired in March, has completed the TOPO and that we are now at the conceptual design stage, in order to be ready for construction in the fall. The biggest component of the construction will be the in-kind donations of time, materials, etc. from both the town as well as local businesses, and "sweat equity" from residents. It should be noted that the BOS gave written support for this project as a whole, as well as supporting in terms of labor, equipment and material as applicable. There have been some shifts in the overall scope of work, in large part because of the damage that the recent heavy rains have done to Lakelands Beach, and that additional stormwater management may be required. The expectation to replace the culvert and put in a rain garden remain, but there may be additional underlying issues we have not discovered as yet.

Ben Dryer from Underwood Engineers provided a status update with design drawings, photos and a materials list. Those documents will be attached to this report.

Following are some of the comments from the various "stakeholders" in this process followed by a summary prepared by Kyle Pimental which outlines the critical steps needed to be completed in order to keep the project on time.

In reviewing Figure 1 in the Underwood Report, which outlined Lakelands Beach as well as the proposed rain gardens, Road Agent Dan Phillips asked if the area in question was wide enough to install a plunge pool. The purpose of a plunge pool is to slow down the water in order to cut down on erosion. It was noted that water was recently seen coming over the road, which is a new development, and that there may be some kind of obstruction from trees or branches upstream that could be causing this. It was also noted that the construction of the stone swale (figure 1) abuts landowners Steve and Kate Cameron and it was noted that language will need to spell out who is responsible for maintenance, etc. Kyle

asked about the timeline of draft costs, and Underwood estimated that information will be available in the next week or so. Rain Gardens listed as #2 and #3 (figure 1) were reviewed and it was noted that Rain Garden #1 has a larger slope but that #2 and #3 have steeper slopes.

Questions regarding the well adjacent to Rain Garden #1 were raised, and Dan Phillips noted that the well is currently a liability and that as a road agent, his suggestion would be to knock it down to grade and put flowable fill in there. Kyle asked if the Highway Department has the manpower to do this and Dan Phillips noted that currently they do not have the manpower, they have the knowledge and the equipment but actual time to devote to it would be limited. Dan noted that with the approval of the BOS he was willing to help with some equipment and materials on an after-hours basis but he did not feel that it was appropriate to support this during working hours, when he is limited in manpower and that his crew are at the point of the year where they are wrapping up their approved projects to begin to prepare for the winter season.

Kyle asked Fred Cameron in what capacity Camerons could support the project? Mr. Camerons sons now own and operate the business so the ultimate decision would rest with them, but he felt that plantings would likely be no problem but additional materials/heavy equipment would be up to the brothers. Dan Phillips suggested Paul Barron might be willing to help as well.

Figure 2 did not have as many questions as Figure 1, it was noted that there would be 2 rain gardens at a low point where the water is pooling. Figure 3 provided a breakdown of the rain garden areas.

Figure 4 deals with the culvert modification plan. Underwood is fairly confident that there is a bend at some point in the current culvert which is causing an obstruction. Underwood attempted to use a GoPro with grade stakes to see the path but was not able to do so.

It should also be noted that Heather Cremmen suggested that it would be prudent to check with how liability would be affected by those donating time or equipment.

Kyle Pimental suggested that while the committee irons out commitments we should develop an organizational plan, and asked if the BOS would be open to allowing us to stockpile materials in one location on town property so that we have everything in location. John Mullen will discuss with the BOS.

Additional discussions that took place during this meeting, including who will be the point of contact for various companies that might be able to donate or reduce cost on materials, joint meetings with the Conservation Commission, Planning Board, etc. are listed as part of Kyle Pimental's summary notes which follow.

Notes from Strafford Regional Planning:

There are A LOT of moving pieces to this next phase. It is imperative that we are diligent in making significant progress over the next several weeks. Below are the identified next steps that we prioritized last night.

1. NHDES Expedited Wetland Permit – Lake Lands Association Beach

- a. Determine whether Conservation Commission will sign letter to allow UE to request expedited review with NHDES
 - i. ACTIONS:
 - 1. UE to send permit materials to SRPC as soon as possible
 - a. These materials will also be used for the local CUP permit.
 - 2. SRPC to disburse materials to Conservation Commission through the Chair and discuss the following options:
 - a. Conservation Commission reviews materials through email and provides any comments back to the Chair by 8/22. If there are no objections, the Chair will be authorized to sign a letter and submit to SRPC.
 - i. given time constraints, this is the preferred approach.
 - b. If there are concerns, the SLWAC will invite members of the Conservation Commission to a joint meeting on 8/28 for further discussion.
 - c. If concerns still exist, UE and SRPC will attend the Conservation Commission's meeting on 9/9 to answer any questions.

2. Landowner Coordination – Lake Lands Association Beach

- a. Obtain permission for work to be conducted on private property
 - i. ACTIONS:
 - John to speak with Steven Cameron about the proposed scope of work to be conducted on the property
 - 2. SRPC to draft the following easement language:
 - Access and maintenance easement for the culvert replacement (it is possible this may not be necessary because there are existing deed restrictions that indicate property owners cannot restrict flows to the lake)
 - b. Access and maintenance easement for raingarden #1

3. Local Wetland Permit – Lake Lands Association Beach

- a. Obtain Conditional Use Permit from Planning Board
 - ACTIONS:

- 1. SRPC to fill out Conditional Use Permit application and submit to be heard by the following boards:
 - a. Conservation Commission: 9/9
 - b. Planning Board: 9/11 (Public Hearing requirements)

4. Coordination with the Board of Selectmen – Lake Lands Association Beach

- a. Obtain permission and support on key components of the project i. ACTIONS:
 - 1. John and Dan to speak with the Selectmen on the following items:
 - a. Permission for staff to use equipment after core working hours; this should also include a discussion on any potential liability concerns
 - b. Permission to donate available materials (see attachment)

5. Building Manpower and Cataloging Donations – Lake Lands Association Beach

- a. Obtain commitments from available contractors to help with construction and stockpile available materials and donations
 - i. ACTIONS:
 - Dan to reach out to PIKE Industries to determine whether they would donate 2 tons of materials to make the bituminous asphalt for curbing
 - John to speak with Scott and Steven Cameron to confirm what materials and/or equipment they are willing to donate to the project (see attachment)
 - John to reach out to Paul Barron to determine availability and willingness to donate time and equipment to serve as site contractor
 - 4. Dan to provide a list of professional road construction companies that specialize in culvert replacements
 - SRPC to help negotiate cost estimates for proposed work
 - John and Dan to reach out to any other local contractors to determine what materials could be donated to the project. This may include AJ Foss and Barron Brothers.
 - 6. Smaller materials should be stockpiled and set aside at the Highway Department. Other, larger pieces of infrastructure, will be dropped off at the site and set aside in the parking lot starting after Labor Day. The biggest pieces of infrastructure will likely be dropped off just prior to the commencement of construction.

With no further discussion the meeting was adjourned at 7:45 PM

Respectfully submitted,

Joni van Gelder/member/clerk SLWAC

Sunrise Lake SCM's - Materials and Labor

8/14/2025

Lakeland Beach - Materials List

Item Description	Estimated	<u>Units</u>	To Be Supplied By
	Quantities		
Silt Fence or Silt Soxx for Erosion	280	Linear Feet	
Control			
Bituminous Asphalt for Curb	2	Tons	
Granite Curb (Alternate)	60	Linear Feet	
Geotextile Fabric for Rain Gardens	200	Square Yards	
1 ½" Washed Stone for Rain	50	Cubic Yards	
Gardens			
3/8" Washed Stone for Rain	25	Cubic Yards	
Gardens			
Infiltrating Soil Mix for Rain Gardens	40	Cubic Yards	
Bark Mulch for Rain Gardens	15	Cubic Yards	
Gallon Size Native Plants for Rain	250	1 plant per 5	
Gardens		Square Feet	

NOTES:

• Native plants can be flowering plants (gallon size) and/or larger shrubs

Sunrise Lake SCM's - Materials and Labor

8/14/2025

Lakeland Beach - Labor Hours and Equipment

<u>Labor</u> <u>Category</u>	Labor and Equipment Description	Estimated Quantities	<u>Units</u>	To be Supplied By
Handwork	Install silt fence, silt soxx and erosion controls	4	Hours	
Handwork	Shaping and molding asphalt curb	8	Hours	
Excavation	Mini excavator for rain gardens	16	Hours	
Hauling	Dump truck or dump trailer to carry surplus and/or waste materials off site	16	Hours	
Handwork	Placing geotextile at bottom and sides of rain garden excavation	4	Hours	
Backfill	Placing 1 ½" crushed stone layer above geotextile fabric	12	Hours	
Backfill	Placing 3/8" washed stone layer above 1 ½" Washed Stone	12	Hours	
Backfill	Placing infiltrating soil mix layer above 3/8" washed stone for rain gardens	12	Hours	
Handwork	Use hand shovel to install native plantings	16	Hours	
Handwork	Install bark mulch at 3" depth for rain gardens	8	Hours	

NOTES:

• Project Manager or Site Superintendent hours are not shown. The level of effort will be a function of sequencing the work and total hours required.

Sunrise Lake SCM's - Materials and Labor

8/14/2025

Hampshire Shores Beach - Matrerials List

Item Description	Estimated	<u>Units</u>	To Be Supplied By
	Quantities		
Silt Fence or Silt Soxx for Erosion	125	Linear Feet	
Control			
Geotextile Fabric for Rain Gardens	125	Square Yards	
1 ½" Washed Stone for Rain	20	Cubic Yards	
Gardens			
3/8" Washed Stone for Rain	10	Cubic Yards	
Gardens			
Infiltrating Soil Mix for Rain Gardens	30	Cubic Yards	
Bark Mulch for Rain Gardens	10	Cubic Yards	
Gallon Size Native Plants for Rain	200	1 plant per 2	
Gardens		Square Feet	

NOTES:

• Native plants can be flowering plants (gallon size) and/or larger shrubs

Sunrise Lake SCM's – Materials and Labor

8/14/2025

Hampshire Shores Beach – Labor Hours and Equipment

<u>Labor</u> <u>Category</u>	Labor and Equipment Description	Estimated Quantities	<u>Units</u>	To be Supplied By
Handwork	Install silt fence, silt soxx and erosion controls	2	Hours	
Excavation	Mini excavator for rain gardens	8	Hours	
Hauling	Dump truck or dump trailer to carry surplus and/or waste materials off site	8	Hours	
Handwork	Placing geotextile at bottom and sides of rain garden excavation	4	Hours	
Backfill	Placing 1 ½" crushed stone layer above geotextile fabric	8	Hours	
Backfill	Placing 3/8" washed stone layer above 1 ½" Washed Stone	8	Hours	
Backfill	Placing infiltrating soil mix layer above 3/8" washed stone for rain gardens	8	Hours	
Handwork	Use hand shovel to install native plantings	8	Hours	
Handwork	Install bark mulch at 3" depth for rain gardens	4	Hours	

NOTES:

• Project Manager or Site Superintendent hours are not shown. The level of effort will be a function of sequencing the work and total hours required.

Sunrise Lake SCM's – Materials and Labor

8/14/2025

Lake Shore Culvert - Materials List

Item Description	Estimated Quantities	<u>Units</u>	To Be Supplied By
Masonry Headwall	1	Unit	
4' Diam Pre-Cast Concrete Manhole	1	Unit	
Stone Bedding for Pipe, Manhole and Headwall	25	CY	
24" Diameter HDPE Pipe	50	Linear Feet	
Silt Fence	150	Linear Feet	

Sunrise Lake SCM's – Materials and Labor

8/14/2025

Lake Shore Culvert - Labor Hours

<u>Labor</u>	Labor and Equipment Description	Estimated	<u>Units</u>	To be Supplied By
<u>Category</u>		Quantities		
Handwork	Install silt fence, silt soxx and erosion	2	Hours	
	controls			
Clearing	Chain saw and hand tools to clear	16	hours	
	small trees and brush in existing			
	culvert pipe and outlet area			
Excavation	Medium excavator to remove section of	8	Hours	
	existing 24" CMP culvert pipe and			
	shape stream channel.			
Excavation	Medium excavator to install drain pipe,	8	Hours	
	manhole, and headwall			
Backfill	Stone bedding for drain pipe, manhole	8	Hours	
	and headwall			
Backfill	Placing native backfill material for drain	8	Hours	
	pipe, manhole and headwall			
Hauling	Dump truck or dump trailer to carry	8	Hours	
	surplus and/or waste materials off site			

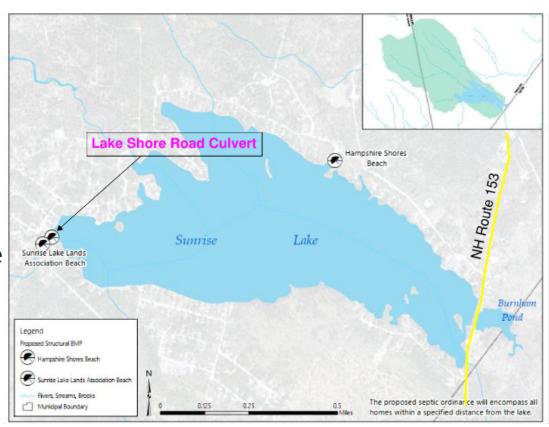
NOTES:

• Project Manager or Site Superintendent hours are not shown. The level of effort will be a function of sequencing the work and total hours required.

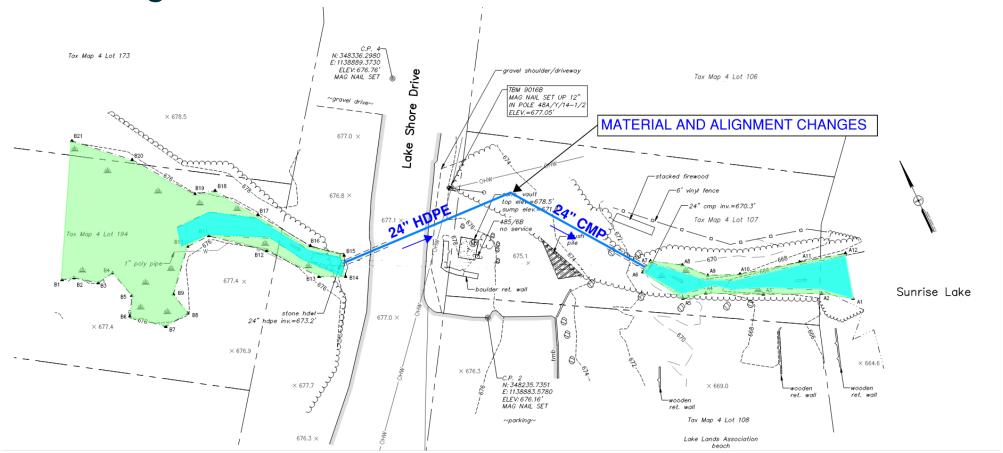


Project Overview

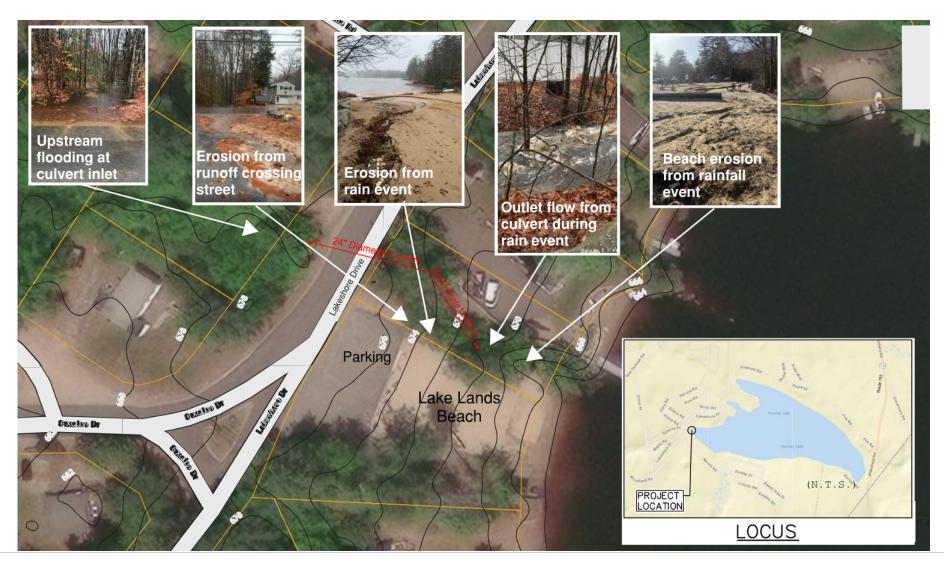
- Sunrise Lake Watershed Management Plan (12.31.21) identified water quality goals and proposed project sites.
- Water quality goals include a 20% reduction in Phosphorous loading
- The existing cross culvert at Lake Shore
 Drive adjacent to Lake Lands Beach is one
 of the proposed project sites
- The culvert is functioning poorly and contributes to erosion during rain events.
- The sediment produced from erosion is a source of Phosphorous loading to the lake.



Existing Conditions







Existing Conditions

- Existing Corrugated Metal Culvert (CMP) section is failing.
- Rotted invert leads to sediment transport (Phosphourous to lake)
- Further deterioration reduces structural integrity and may potentially collapse

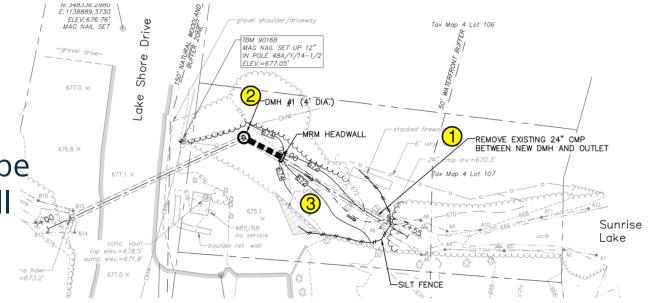


Proposed Conditions

1. Remove ~ 50 LF of existing CMP culvert

2. Construct Drain
Manhole, 24" HDPE Pipe
and Masonry Headwall

3. Grade new stream channel to simulate existing down stream channel.



Proposed Conditions

- The proposed improvements will eliminate the failed section of corrugated metal pipe
- The proposed drain manhole provides maintenance access for removing any debris from the culvert to maintain flow capacity (~40 CFS or 100 year storm)
- Shortening the length of pipe at the culvert crossing improves hydraulic conditions
- The improvements will mitigate erosion at the beach related to restricted culvert flow and sediment transport (Phosphorous) to the lake

